February 14, 2003

Biosketches of the
Radiation Advisory Committee Members
Science Advisory Board
U.S. Environmental Protection Agency

Dr. Lynn Anspaugh: Dr. Anspaugh currently is Research Professor of Radiobiology, in the Department of Radiology at the University of Utah, Salt Lake City. He has held a number of teaching and visiting lecturer positions. His principal research interests include trace elements in human metabolism, aeolian resuspension of transuranic radionuclides, public health implications of the use of nuclear energy, environmental effects of utilizing geothermal energy, reconstruction of radiation doses from early and late fallout of nuclear weapons tests, reconstruction of radiation doses from facilities for the production of special nuclear materials, and calculation of radiation doses from the Chernobyl nuclear reactor accident. Dr. Anspaugh has authored or co-authored over 250 publications and 50 abstracts in the above and related topics.

Dr. Anspaugh served as a Biophysicist and Director of the Dose Reconstruction Program, as well as Director of the Risk Sciences Center at the Lawrence Livermore National Laboratory (LLNL); he also served for ten years as the leader of LLNL's Environmental Sciences Division. He is active in a number of national and international professional societies, including the American Association for the Advancement of Science (AAAS), the Health Physics Society (currently a fellow of the HPS, as well as Past President of the Northern California Chapter and Environmental Radiation Section of the HPS and currently a member of the Board of Directors of the Great Salt Lake Chapter of the HPS), the International Union of Radioecology, the Radiation Research Society, and the Society for Risk Analysis. He was a consultant to the SAB's Subcommittee on Risk Assessment for Radionuclides (1984) and was a member of the SAB's Review Panel on Total Human Exposure (1985). He has served on a number of prestigious national and international working groups, including the U.S. Delegation to the United Nations Scientific Committee on the Effects of Atomic Radiation. He holds a B.A. in Physics, Masters in Bioradiology (Health Physics), and Ph.D. in Biophysics.

Dr. Anspaugh is currently the US Principal Investigator on reconstruction of radiation dose for members of the Extended Techa River Cohort who were exposed to liquid releases from the first Russian facility for the production of plutonium, and he will be the US Principal Investigator on the reconstruction of releases of ^{131}I and other radionuclides from the same Russian facility and the resulting dose to the thyroid of children and adults living in the community of Ozersk. These two studies are funded by the Department of Energy with assistance from the Environmental Protection Agency for the first project. As a private consultant Dr. Anspaugh has been a key participant in the Department of Health and Human Services' reconstruction of radiation dose to the entire country from fallout from Nevada tests and from the large-scale tests that produced global fallout. He and Prof. Straume have a contract from the National Cancer Institute to determine the deposition of ^{129}I in Belarus as a surrogate for the deposition of ^{131}I. Dr. Anspaugh is also participating in a dose-reconstruction study for the Idaho Nuclear Engineering Laboratory (with Centers for Disease Control Funding) and in a dose

reconstruction for Chernobyl liquidators to support a case-control study of leukemia and thyroid cancer being conducted by the International Agency on Cancer Research.

Dr. Bruce B. Boecker: Dr. Boecker is Scientist Emeritus, Lovelace Respiratory Research Institute, Albuquerque, New Mexico. He has been a member of the National Council on Radiation Protection and Measurements (NCRP), served on its Board of Directors, and now has been elevated to Honorary Member. He is a current member of ICRP Committee 2 on Doses from Radiation Exposure. Also, he is a Diplomate of the American Board of Health Physics and a Certified Health Physicist. Dr. Boecker is a Fellow of the Health Physics Society (HPS) and has been awarded their Distinguished Scientific Achievement Award. He has served on numerous committees dealing with intake, internal doses, bioassays, epidemiology, radiobiology and risks from internally deposited radionuclides. He was a consultant to develop a Federal Strategy for research into the biological effects of ionizing radiation.

Dr. Gilles Bussod: Dr. Bussod is President of Science Network International, Inc., and was previously employed as a Hydrogeologist and Geochemist at Los Alamos National Laboratory, Los Alamos, N.M. He worked on several Environmental Restoration Programs specializing in the design and implementation of field studies on radionuclide transport and the remobilization of "legacy waste" (using chemical analogues) in the environment. He also served as LANL Project Leader and technical manager for the Yucca Mountain Project, and PI for the Underground Unsaturated Zone Transport Test, Busted Butte, Nevada. He also holds an appointment as Professor Candidat aux Universities de France since 1994. As Principal Investigator for the Yucca Mountain project, he was resident expert on the unsaturated zone, and flow and transport phenomena. He holds authorship or co-authorship in over 60 publications involving geochemical flow and transport and related phenomena, as well and over 30 invited oral presentations dealing with unsaturated zone modeling, high pressure and high temperature research in experimental rock physics and petrology, novel drilling methods, rock melting drilling systems, deformation mechanisms, energy extraction techniques, high pressure experimental seismic velocity measurements and related topics.

Dr. Bussod receives funding from the Environmental Restoration Program, and Post Cerro-Grande Fire Monitoring Project, Los Alamos National Laboratory. He also receives funding from Geophysical and Environmental Sciences Consulting, New England Research, Inc., Vermont Consultant and Researcher, the European Conservation Project, and the Catholic University of Leuven, Belgium. Dr. Bussod was a visiting Professor and researcher at the Bayerisches Geoinstitut in Germany, as well as a Professor at the University of Paris, France and in 1998, served as a Delegation Member to the U.S. Secretary of State at the Economic Summit Conference in Doha, Qatar. He is a member of a number of professional societies, including the American Geophysical Union, and has received a number of awards for his research. He also holds a 1998 U. S. patent for a rock-melting tool. Dr. Bussod is a geochemist with a Ph.D. in Geology and Earth and Space Sciences from UCLA and a Ph.D. in Geophysics from the University of Paris, France.

Dr. Helen Ann Grogan: Dr. Grogan is employed as an independent consultant who has her own consulting firm, Cascade Scientific, which has been subcontracted by Risk Assessments Corporation (RAC) to work on a variety of projects, including an independent assessment of the risks to the public from the 2002 Cerro Grande Fire for the New Mexico Environment Department, development of a risk-based screening for historical radionuclide releases to the Columbia River from the Hanford Nuclear Facility in Washington under contract to the Centers for Disease Control and Prevention (CDC), and two dose reconstruction projects (Rocky Flats near Denver, CO and Savannah River in So. Carolina). She has served as a consultant to the SAB's Modeling Subcommittee. Her work has emphasized quantifying cancer risk and its uncertainty following exposure to plutonium from inhalation and ingestion. She has also assisted in the development of an International Features Events and Processes (FEP) database for the Nuclear Energy Agency (NEA) Organization for Economic Cooperation and Development(OECD) in France to be used in the performance assessment of radioactive waste disposal systems. In addition, she was also involved with the Swiss National Cooperative for the Disposal of Radioactive Waste (Nagra), for High Level Waste (HLW) and Low-/Intermediate-Level Waste (L/ILW) specifically in the development of scenario analyses for the Nagra Kristallin I and Wellenberg projects and development of supporting data bases that identify important phenomena (features, events and processes) that need to be accounted for in repository performance assessment and the Biospheric Model Validation Study - Phase II) BIOMOVS II study, which is an international cooperative effort to test models designed to quantify the transfer and accumulation of radionuclides and other trace substances in the environment.

Dr. Grogan's doctoral thesis title is "Pathways of radionuclides from soils into crops under British field conditions." She has authored or co-authored several dozen publications, and technical reports dealing with the role of microbiology modeling the geological containment of radioactive wastes, plant uptake of radionuclides, laboratory modeling studies of microbial activity, models for prediction of doses from the ingestion of terrestrial foods (with a focus on radionuclides), long-term radioactive waste disposal assessment, modeling of radionuclides in the biosphere, quantitative modeling of the effects of microorganisms on radionuclide transport from a High Level Waste (HLW) respository and related topics. She is a Botanist with modeling and radionuclide experience. She is a British citizen who received her Bachelor of Science Degree in Botany with honors from the Imperial College of Science and Technology at the University of London, and her Ph.D. from that same university.

Dr. Richard W. Hornung : Dr. Hornung is a member of the RAC since FY 2001. He currently heads the Statistical Working Group of the Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP) Review Panel. He served as a consultant to the RAC (March, 1999), and participated in the SAB's advisory on Radon Risk. He is currently a Senior Research Associate and Director of the Division of Biostatistical Research and Support in the Institute for Health Policy and Health Services Research at the University of Cincinnati Medical Center in Cincinnati, Ohio. He has served since 1996 as a member of the White House Committee on Revisions to the Radiation Exposure Compensation Act. Since 1990, he has served as an advisor on the National Research Council. He received numerous awards, including the U.S. Public Health Service award for "Sustained High Level Performance in the Field of Biostsatistics." He was a consultant to the National Academy of Science Committee on the Biological Effects of Ionizing Radiation (BEIR IV). He is a reviewer for a dozen scientific journals. His peer-

reviewed publications deal with exposure assessment methods, lung cancer risk in Uranium miners, dose assessments, dose reconstruction, development of models for use in estimating exposures to a number of pollutants, including diesel exhaust, benzene, ethylene oxide, lung cancer in shipyard workers and other related topics. In the area of radiation research, he is currently funded under contract to the University of Kentucky to serve as the scientific director of an occupational epi study of workers at the Paducah Gaseous Diffusion Plant. He is also funded by NIOSH as the biostatistician on a study of radiation related cancers among residents living near the Fernald plant in Southwestern Ohio.

Dr. Horning has a B.S. in Mathematics from the University of Dayton, an M.S. in Statistics from the University of Kentucky, and a Ph.D. in Biostatistics from the University of North Carolina.

Dr. Janet A. Johnson: Dr. Johnson is currently employed by MFG, Inc. in Fort Collins, CO as a Senior Radiation Scientist with expertise in health physics, chemistry, and environmental health. MFG, Inc., a Tetratech Company, provides environmental engineering consulting services to industry including the mining sector. She was formally employed by Colorado State University as Interim Director of Environmental Health Services in Fort Collins, Colorado. She is a certified industrial hygienist (CIH, radiological aspects) and is also certified in the comprehensive practice of health physics by the American Board of Health Physics. She is an active member of a number of radiation and health-oriented professional organizations, such as the Health Physics Society (HPS). She is a Fellow of the Health Physics Society (HPS) and a former member of the Board of Directors. She has served on the Governor's (Colorado) Radiation Advisory Committee since 1988 and was a member of the Colorado Hazardous Waste Commission.

Dr. Johnson has a number of publications to her credit, as well as broad-based consulting experience dealing with such topics as nuclear safety and radiological site assessments, risk assessment for uranium mill reclamation, risk assessment for uranium in groundwater, radiation monitoring for uranium miners, radiological risk assessment of abandoned mine lands, radium land clean-up standards, uranium mill license renewal application preparation and radiological considerations, radium safety and training, estimating the risk of lung cancer from inhalation of radon daughters indoors, and comparison of radioactivity and silica standards for limiting dust exposures in uranium miners, preparation of NRC license applications for consumer products, pre-operational site surveys, UMTRA health and safety audits, radon measurement, and other related topics. She chaired the ERAMS II advisory (EPA-SAB-RAC-ADV-98-001, August 28, 1998)., is currently (since 1999) Chair of the RAC, and is chaired the MARLAP Review by the MARLAP Review Panel of the RAC. Her training includes a B.S. in Chemistry from the University of Massachusetts, an M.S. in Health Physics (as an AEC Health Physics Fellow) from the University of Rochester, and a Ph.D. in Microbiology and Environmental Health from Colorado State University.

Dr. Jill A. Lipoti: Dr. Lipoti is presently Assistant Director of Radiation Protection Programs for the New Jersey Department of Environmental Protection in Trenton, NJ. She has held this position since 1989. This program administers licensing and inspection of radiation sources, certification of technologists, radon public awareness, certification of radon testing and mitigation firms, low level radioactive waste siting issues, nuclear emergency response, oversight of nuclear power plant activities for environmental releases, and non-ionizing radiation. She has also held positions of Chief of the NJ DEP Bureau of Hazardous Substances Information (6/88 to 4/89), as well as Supervisor of Communication/Outreach in the NJ DEP Bureau of Hazardous Substances Information (7/87 to 6/88). Dr. Lipoti served as a Hazardous Materials Specialist with the NY/NJ Port Authority (9/84 to 6/87), as an Assistant Instructor in the Department of Environmental Science at Rutgers University in New Brunswick, NJ (6/79 to 9/84), and as an Adjunct Professor of Chemistry at Middlesex County College in Edison, NJ (9/79 to 6/80, and 9/83 to 6/84). Dr. Lipoti's funding comes from the NJ DEP as a State employee. A modest portion of the funding as a state employee is charged to her time spent on and EPA Grant for the NJ Radon Program, as well as for NJ DEP activities related to the four Nuclear Power Plants in the State of New Jersey.

She has publications and proceedings in a broad range of topical areas, such as diagnostic radiology quality assurance, certification of radiation risks from high-dose fluoroscopy, nuclear power plant and X-Ray program redesign, reduced emissions from mammography, public confidence in nuclear regulatory effectiveness, the linear non-threshold regulation, similarities and differences in radiation risk management, partnerships between state regulators and various other organizations, electromagnetic fields from transformers located within buildings, community Right-to-Know, identifying individuals susceptible to noise-induced hearing loss, community noise control, safety for supervisors - an updated manual for training of supervisors at the Port Authority, and a variety of other topics.

Dr. Lipoti holds numerous appointments to boards and councils. For instance, she currently serves as Chair of the Committee on Public Information on Radiation Protection and as Liaison to the American College of Radiology, as well as Liaison to the American Association of Physicists in Medicine. She has served as Chairman of the Conference of Radiation Control Program Directors (1997-98), the Board of Directors and Chair of of the Environmental Nuclear Council (1992-95), Chair of the Transportation Committee (1991-93) and is a member of the National Council on Radiation Protection and Measurement (NCRP). She is a member of the Health Physics Society, the American College of Radiology, the Science Advisory Board's Radiation Advisory Committee and other organizations. She is the State of New Jersey Representative to the U.S. Nuclear Regulatory Commission (NRC), the Interagency Steering Committee on Radiation Standards (ISCORS), and served as a member of the Technical Electronic Products Radiation Safety Standards Committee for the U.S. Food and Drug Administration (FDA).

Dr. Lipoti has provided expert testimony on a variety of radiation-related topics. She has provided comments on the revised oversight program for nuclear power plants, and orphan source recovery, and licensee's accountability programs before the U.S. NRC. She has also provided comments to various Congressional committees and subcommittees, such as comments on the Radon Disclosure and Awareness Act in a joint hearing before the United States House of

Representatives Subcommittee on Transportation and Hazardous Materials and the Subcommittee on Health and the Environment, and comments on the Indoor Radon Abatement Reauthorization Act of 1993 in a hearing before the U.S. Senate Committee in Environment and Public Works, Subcommittee on Clean Air Nuclear Regulations.

Dr. Lipoti holds a Ph.D and M.S. in Environmental Science from Rutgers University, and a B.S. in Environmental Science from Cook College in New Brunswick, NJ.

Dr. Genevieve Roessler: Dr. Roessler is Editor-In-Chief of the Health Physics Society (HPS) Newsletter (1991 to the present) and the HPS Web site (1999 to the present), and has served in numerous positions in the HPS, including President and Editor-in-Chief of the Journal *Health Physics* (1982 to 1988). She is Editor-in-Chief of the Society for Risk Analysis RISK *newsletter* (1997 to present). She is a member of the Advisory Board on Radiation and Worker Health appointed by the President to advise the Department of Health and Human Services on its radiation compensation activities and is on the Binational Advisory Committee to the National Institutes of Health on the Chernobyl Thyroid Study. She was a member of the National Council on Radiation Protection and Measurements (NCRP) (1990 to 2002). She has served on the U.S. Department of Energy's Health and Environmental Research Advisory Committee (HERAC, 1984-1988), including service on a number of HERAC Subcommittees, such as the Subcommittee on Nuclear Medicine (1987-1988), and the Subcommittee on Radiation Biology (1985-1988). She has served as the U.S. Delegate to the 5th through the 9th International Congress of the International Radiation Protection Association. She has served as a reviewer with the National Academy of Sciences, as well as the Technical Advisory Group of the Rocky Flats Blue Ribbon Committee of the State of Colorado. She has served on the Advisory Panel for the dose reconstruction project at DOE's Hanford site.

She retired in 1993 as Associate Professor of Nuclear Engineering Sciences and Coordinator of the Radiological Science Program at the University of Florida. She has broad and in-depth experience in the areas of health physics, radiation protection, radiation biology, dosimetry, nuclear medicine, indoor radon, radiation risk evaluations, radioactivity in medicine and biology, in vivo and in vitro radioactivity measurements, whole body counting, radiation emergency planning, and public information and risk communication on radiation. Her academic background is in the disciplines of mathematics, radiation biophysics and environmental engineering focused on radiological health. Dr. Roessler holds a Ph.D. in Environmental Engineering, with a specialty in Radiological Health, an M.S. in Radiation Physics, and a B.A. in Mathematics.

Dr. Richard J. Vetter: Dr. Richard J. Vetter is Director of Safety for Mayo Foundation, Radiation Safety Officer for the Mayo Clinic and Professor of Biophysics of the Mayo Medical School in Rochester, Minnesota. His major areas of interest include biological effects and dosimetry of ionizing and nonionizing radiation, and public policy of radiation applications.

Dr. Vetter is certified by the American Board of Health Physics and the American Board of Medical Physics. He is Former Health Physics Society President and Journal Editor, and has served as Editor-in-Chief of the Health Physics Journal, as well as on the Board of Directors of the Health Physics Society. He is a member of the NCRP Council and Board of Directors, the

American Association of Physicists in Medicine, the Society of Nuclear Medicine, the American Academy of Health Physics, and the International Radiation Protection Association. He has served in numerous capacities on the Mayo Clinic and Foundation activities, such as the Ad Hoc Committee on Low Level Radioactive Waste, the Radiation Safety Committee, the Mayo Foundation Radiation Safety Committee, and the Foundation Environmental Health and Safety Committee. He has also participated in a number of professional activities at the state level, such as the Minnesota User's Group on Low Level Radioactive Waste Management. He is or has been a reviewer for the American Council on Science and Health, the Health Physics Journal, Radiation Research and numerous other publications. He is author or co-author of more than 200 publications in health physics and environmental toxicology. He received his B.S. and M.S. in biology from South Dakota State University in Brookings, SD and his Ph.D. in Health Physics from Purdue University in West Lafayete, IN.